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VACCINES AND VACCINE THERAPY.
With Report of Cases.

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Part One.

We have the honor to present for your discussion the subject of bacterial vaccines, taking it up from both a theoretical and clinical standpoint. It is a known fact, and has been for years, that following an attack of certain acute infectious diseases, there remains a lack of susceptibility to reinfection, the individual becoming immune. The various theories of immunity will be discussed presently.

As early as the year 1796, Jenner took immunity as a basis and perfected vaccination against small-pox. In the middle of the 19th century, it was demonstrated that micro-organisms, known as bacteria, were the cause of various acute infectious diseases, and even at this early date attempts were made to produce immunity by means of injections of killed bacteria.

Pasteur immunized against chicken cholera, but this was found to be impracticable. Haffkine succeeded in immunizing against cholera, and was followed later by Pfeiffer and Wright

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in successful immunization against typhoid fever. Pasteur was successful in producing active immunization in hydrophobia.

When active immunization is begun during the course of an infection, there is a superimposition of a mild form of the disease upon a severer form, thus accentuating the disease. The foregoing fact is what caused the relatively long period of cessation of this method of treatment. Wright revived active immunization and used the method before he discovered opsonins.

Wright has done a great work by determining the proper dosage for the various vaccines, using the opsonic index as a guide. He has suggested certain doses and lays down the principle of giving the smallest dose that will cause a rise in the opsonic index, and never to increase the amount injected until it has been ascertained that the doses which have been injected have been too small to produce a good rise in the index.

In some of our cases we have observed headaches, fever and vomiting, but seldom when doses as recommended by Wright were given. The foregoing symptoms make up the negative phase, which is followed in about twenty-four hours by a marked buoyancy of spirits and stimulation—the positive phase.

It is important to give the injection in the region where absorption is rapid, and the subcutaneous is preferrable to the intravenous method. We rely upon the clinical manifestations as our guide to dosage and interspacing of injections, paying no attention to the opsonic index. Hektoen regards the opsonic index as essential, but Park, Cole and Balduan regard it as unreliable for such purposes.

We have, at our command, two kinds of bacterins—autogenous and stock—each of which has its special advantages. The advantage of the stock vaccine over the autogenous is the time element, but the treatment may prove a failure, owing to the fact that all of the offending organisms may not be present in the vaccine.

When a human being becomes infected by micro-organisms, he is able to resist and overcome the bacterial invasion. There are three theories which attempt to elucidate the way the organisms defends themselves against microbic infection.

The humeral theory, elaborated and championed by Ehrlich, is that the organism produces an immunity as the result of chemical reactions going on between the toxins and the cells; in this reaction the cells throw off anti-bodies to combat the toxins.

Metchnikoff's theory, also known as the cellular theory, is based on the phagocytic property of the leukocytes, i. e., that

property of the white cells whereby it is able to digest bacteria

At the present time the theory of opsonins promulgated and taught by Wright and his school is considered the explanation of the biological force at work in immunity. According to this theory, the presence of the bacteria stimulates the tissues to the production of opsonins and other anti-bodies, these act on the micro-organisms in a number of ways, preparing them for the phagocytes.

The opsonins and phagocytes are assisted by nature in that she tries to localize the infection, i. e., instead of allowing the bacteria to multiply and go into the general circulation, she corners the germs and then what happens? A local infection known as an inflammation. There is an increased blood supply to the part, pain, swelling, redness, fever and the production of pus, which, of course, is the result of the fight between the germs and phagocytes.

What is the origin of the anti-bodies which are so valuable in immunity? Are they produced in the blood serum or are they formed by the tissues? Hektoen and Carlson demonstrated rerecently that the anti-bacterial substances are not elaborated in the blood, but in the tissues; they showed that the circulating blood to which toxins have been added, is rapidly deprived of those toxins, and when transfused into another animal of the same species, sets up no production of anti-bodies in that animal; whereas the original recipient of the toxins, although deprived of its own blood and transfused with that of a third animal, proceeds to develop immune bodies.

To repeat, two elements come into activity in the protection of the organisms against invading bacteria, viz; the phagocytes and the anti-bacterial substances. There a number of ways in which the anti-bodies act on the bacteria and prepare them for the phagocytes.

1. The bacteria may be killed without being dissolved; due to the action of bactericidins.

2. The bacteria may not only be killed but also be dissolved as a result of the action of bacteriolysins.

3. The bacteria may be so changed as to be readily digested by the phagocytes. This is known as the opsonic effect, and is due to the action of the opsonins.

The latter substances are the most important of the immune bodies. The opsonins have been shown to be destroyed by exposure to a temperature of 60 C. for a short time. The opsonic power of the blood gradually disappears on standing, losing about 50% of its activity in five or six days.

The presence of the anti-bacterial substances confers an immunity to a particular disease. This immunity may be a natural or it may be an acquired one. Immunity may result after a pathhological condition has existed, as, for instance, after a person has had scarlet fever, he acquires an immunity for that disease.

Certain parts of the body are more rapidly attacked by bacteria than others, and there are some tissues which are very seldom affected by bacteria; i. e., the latter organs or tissues are able to destroy any organisms that try to attack them, such as spleen or the skeletal muscles.

It has been found that if bacteria are inoculated into the circulation, killing within fifteen minutes and making sections of the liver and other organs, the bacteria are actively taken up and destroyed by the endothelial cells lining the capillaries of these organs.

Experimentally acquired immunity is produced by vaccination; it produces a modified and mild form of the disease. The individual in this case produces his own immunity. As a rule, living or killed bacteria toxins produced by bacteria are injected.

In 1903 Wright and Douglas pointed out that there are certain substances in serum that so affect bacteria that they are more easily taken up and disposed of by the leukocytes. This substance they called opsonin. They decided that the amount present in serum is variable and can be increased by the injection of killed cultures of bacteria. This fact forms the basis of the present day vaccine therapy.

As was said before, Wright and his pupils controlled the dosage by taking the opsonic index. The opsonic index is the ratio of the average number of bacteria per leukocyte when the patient's serum and serum from a healthy individual are added to equal amounts of leukocytes and bacteria. The opsonic index has been found so unreliable and the results obtained are so discordant and inconsistent that it is now practically given up.

Instead, the clinical symptoms of the individual are taken into consideration and the dosage regulated by them. Wright found that in persons with a localized or chronic infection there is a decrease in the opsonin content of the blood. This decreased opsonin content is due to the fact that in local infections but little of the bacterial substances are absorbed, and so gives rise to but a small amount of active immunity. When this is the case the local infection becomes chronic.

Wright has demonstrated that following the injection of vaccine made from cultures of infecting organisms, there is first

a drop in the opsonic index and later a rise in the same. The drop in the index is known as the negative phase and the rise as the positive phase. Agglutinins, precipitins, and bacteriolysins, after the injection of killed bacteria, are also at first decreased and later increased in amount. In the human the negative phase lasts about twenty-four to forty-eight hours; this is followed by the positive phase which lasts from three or four days to two weeks; average, about ten days.

In vaccine therapy the object is to regulate the injections of killed cultures, so as to get as small a negative phase and as long a positive phase as is possible.

Action of Vaccines.—As was said before, in infections the body absorbs certain substances from the infected area which stimulates the organisms to the production of opsonins and other anti-bacterial bodies, and if a sufficient amount of these anti-bodies are present, the infection is combated and brought to a stand-still; if not, the infection goes on and becomes chronic. This infected area is then walled off from the circulation, a running sinus is formed and it may keep on discharging for a long time.

Now by injecting killed cultures of the causal organisms into the body, the anti-bacterial substances are increased in amount, circulation around the site of infection is improved and the infecting germs killed off.

Adami says, "The fact that once bacteria have established themselves within a given tissue and have undergone proliferation there, that in itself is a sign that that particular tissue is not immune; that the subsequent arrest of their growth is not due to an exaltation of the bactericidal powers of the local tissues, but is due to aid contributed by the organism from without."

Dosage.—It seems rather strange that it is necessary to regulate the dosage of the dead organisms to be injected, but nevertheless it is so, and one must be careful not to inject too large a dose of a virulent bacterium, as, for instance, the streptococcus or the tubercle bacillus; one must also be very cautious in administering new tuberculin, one of the reasons for lack of success in tuberculin treatment being that the doses are entirely too large and instead of stimulating, marked toxæmic conditions are produced.

After the injection of the vaccine, constitutional symptoms may arise, such as nausea, vomiting, rise of temperature, etc. The symptoms may be more marked in some individuals than in others and may be severer after a second injection than after the initial injection.

This may be due to the patient's hyper-susceptibility resulting in a condition of anaphylaxis. The physician must watch the patient closely after the second injection and look for any symptoms or signs of an over-dose.

Preparation of Vaccine. The method of making the bacterial vaccine that I am about to describe is the technique used at the National Military Home Hospital and is one for making autogenous or personal vaccines.

First, it is essential to isolate the causal organism or organ isms, if the infection is mixed; knowing the etiological bacteria, one must know the best culture medium for that particular germ. For instance: the gonococcus will not grow on agar alone, but will develop on blood agar or hydrocele fluid; the tubercle bacillus will grow best in broth culture; the typhoid bacillus will develop very well on ordinary agar.

So that the causal organism is isolated and grown on a culture medium for twenty-four to forty-eight hours at a temperature of 37 C., which is the temperature best suited for bacterial growth.

After obtaining a good growth, the colonies are washed down with a small quantity of normal saline solution into a sterile test tube. Here the clumps are broken up so that an emulsion is obtained which is uniform in opacity.

After the bacterial emulsion is obtained it is necessary to count the number of organisms in 1 c. c. of the emulsion in order to standardize the vaccine. This is quite laborious and requires some skill.

To do that, you draw into a capillary pipette one volume of the bacterial emulsion and an equal amount of fresh blood obtained from a puncture in the finger. The volumes are mixed thoroughly and a drop of the mixture placed on a clean slide; with another slide the drop is spread out so that one gets a thin smear. This is allowed to dry and fixed with methyl alcohol and then stained with either Loeffler's methylene blue or Wright's stain. The slide is then counted by determining the number of red blood cells and bacteria in from ten to twenty-five fields of the high power of the microscope.

Now normal blood contains five million red blood cells to the cubic m. m., after having established the ratio of red cells to bacteria in the suspension, it is easy to determine the number of bacteria per cubic mm.

Let R B C equal number of red blood cells counted.

Let B equal number of bacteria counted.

Let X equal number of bacteria in a cubic mm., the unkown quantity.

Therefore, since there are 5,000,000 red cells in 1 cmm. the equation would read as follows:

5,000,000 : x ; ; R B C ; B.

X equal number of bacteria in a cubic mm.

1000 x equal number of bacteria in a c. c.

The tube containing the bacterial suspension is now sealed and heated in a water bath to a temperature of 60° to 65° C. for an hour. This destroys the virulency of the bacteria but does not effect their opsonizing property.

The bacteria being killed, a dilution suitable for injection is made in a bottle containing 30 to 60 c. c. of normal saline solution, enough carbolic acid or lysol being added for preservative purposes to make a 0.5 % solution.

If, on testing the vaccine for sterility on suitable culture media, the growth is found to be negative, the vaccine is ready for use; in using it, the proper aseptic precautions are to be looked after. Everything must be sterile. It is wise to give the injections every 5 or 7 days, but of course, the condition of the patient must be taken into consideration and the reactions must be watched very closely.

PART TWO.

Vaccine treatment has been used in most all diseases and conditions produced by bacteria. The results obtained have been most satisfactory, and the method seemed to have attained a recognized place in our armamentarium of today. We shall attempt to outline to you their uses in the various infections, illustrating the point in question by means of cases treated.

Staphylococcus Infections.—These infections include carbuncles, boils, sycosis, acne, felons, styes and septic wounds, and have proved most satisfactory for treatment with vaccines. In these the autogenous vaccines are not always necessary, as good results have attended the use of stock vaccines. It is important, however, to determine the species and variety of the infecting organisms.

Many cases suffering from carbuncles and boils show great improvement within twenty-four hours after injection, and we have frequently seen a severe infection become very mild with a cure following the second injection. In all cases we have found the best results when a free incision has been made in a carbuncle or in each of several furuncles. The skin in the region of the infection is kept clean by means of benzine, which, in addition to its antiseptic properties, is of great value as a cleansing agent.

The following obstinate cases of furunculosis will illustrate the results of vaccine treatment:

Case 1.—Furunculosis; has had boils for some weeks, especially on the right arm, hindering him from work; examination of urine showed no sugar, excluding diabetes; October 17, autogenous vaccine was made from agar culture which showed staphylococcus albus; three hundred million bacteria were injected every five days. Following the first injection, there was a free discharge of pus and after the second injection, the boils began to show signs of healing. After the third injection, the patient was cured.

Cases 2, 3 and 4, illustrate the use of both stock and autogenous vaccines in carbuncles.

Case 2.—Carbuncle; infection had existed a week or ten days, and there was a great deal of pain and swelling. Free crucial incision was made, and 250,000,000 staphylo bacterins were injected. The fourth day afterward the wound showed marked improvement, at which time 500,000,000 were injected and a rapid recovery followed.

Case 3.—Carbuncle; began October 28, 1910; free crucial incision was made and 250,000,000 staphylo bacterins were injected; no negative phase except a free discharge of pus; five days afterward 500,000,000 staphylo bacterins were injected, following which there were signs of separation of the slough, with free discharge of pus; 1,000,000,000 staphylo bacterins were injected on the tenth day of the infection, following which there was a rapid recovery.

Case 4.—Carbuncle; came into the hospital with a large carbuncle on the back of the neck; temp. 101; pulse 72; respiration 22; carbuncle seemed to be extending rapidly. An autogenous vaccine was prepared and injected with most marvelous results. The threatened extension was prevented and granulations sprang up with great rapidity, the patient making a good recovery.

The following (case 5) shows a striking result in the case of osteomyelitis of long standing:

Case 5.—Osteomyelitis of sternum; patient was thrown from a horse in 1906, injuring his sternum, osteomyelitis followed; bone had been curretted but four sinuses persisted and continued to discharge; an autogenous vaccine was prepared for the patient; the discharge stopped after four injections, the sinuses closed and have remained so for a year.

Streptococcus Infections.—These infections are of a very severe type and a course either toward death or spontaneuos

recovery is rapid. It is a question therefore, as to whether the production of anti-bodies as a result of a vaccine, will have been great enough to overcome the infection before nature herself can come to the rescue.

We wish to report the following case of erysipelas:

Case 6.—Erysipelas; patient had a severe chill, followed by a high fever; then zones of inflammation and œdema over both eyelids, which coalesced; soon after the inflammatory areas suppurated and a thin purulent discharge followed, examination of this showed the etiological germ to be the streptococcus of Fehleisen. A few days after admission to the hospital a small red area was noticed on the back of his right hand, which soon broke down and discharged. Patient was very old and feeble and a vaccine was thought very necessary to assist in combating the infection; a few injections of an autogenous vaccine were given and in about two weeks he began to show signs of improvement, which has been steady up-to-date.

The use of streptococcus vaccine as a prophylactic measure in scarlet fever was introduced by Gabritschewsky and other Russian investigators, the vaccines employed being a concentrated bouillion culture of streptococci, isolated from cases of scarlet fever. The vaccines are prepared and standardized after a method recommended by Gabritschewsky. There is a slight reaction following its use. Over fifty thousand vaccinations have been made and the reports have been very favorable; after three inoculations there is established a complete immunity against scarlet fever.

The following case of tuberculosis had a very severe cough, which proved to be due to a mixed infection, in which the streptococcus was thought to play the most important part.

Case 7.—Tuberculosis; with mixed infection; admitted to the hospital with a severe cough and pain in the chest; sputum showed tubercle bacilli, streptococci and staphylococci; cough very troublesome, dry and hacking, mostly at night. An autogenous vaccine was made and the result of a few injections was very satisfactory; the night cough ceased, though he coughed some during the day. Temperature at the time of injection was 98.2; pulse 66; respiration 24. The following day the temperature was 100; pulse 70; respiration 38; the negative phase. This man experienced a great deal of relief and his cough was undoubtedly due to the streptococcus, principally.

Infections Due to Pneumococcus.—The following cases showed remarkable improvement after the use of pneumo-bacterin and

helps to convince us that the use of it is especially advantageous in the aged where the power of anti-body formation is below par; also in cases of delayed resolution. It is also to be borne in mind that the pneumococcus may not be the only cause of pneumonia and an examination of the sputum should always be made. Undoubtedly the use of vaccine will lower the death rate in pneumonia, especially in persons of low vitality.

Case 8.—Lobar pneumonia; patient had a severe chill, general aching over the body, pain in left chest, but no cough. Examination showed temperature 103; pulse 100, respiration 30; bronchial breathing, rales and dullness in left chest; general medical treatment was continued eight or nine days, during which time venesection was done twice for the relief of the right heart, with beneficial results. There seemed to be no prospect of resolution and it was decided to try the pneumo vaccine; four doses were given at four hour intervals, consisting of 50,000,000; 100,000,000; 200,000,000 and 400,000,000; there was a marked improvement in her condition, manifested by a fall in the persistent high temperature and lowering in the pulse rate with an increase of quality. Expectoration become easier and the case made an uninterrupted recovery.

Case 9.—Pneumococcus infection; patient had a very severe cough which became worse from day to day. Examination of the sputum showed numerous pneumococci, no tubercle bacilli; no signs of pneumonia.

He was given a stock pneumo bacterin. Cough subsided in a few days, the patient stated that he felt much better. He received no other than tonic treatment and was discharged in a few days, cured.

Gonococcus Infection.—The results obtained by the use of vaccines in acute gonococcus infections have not been satisfactory, but in chronic cases they have been more encouraging. Good results have been reported in the treatment of gonorrheal arthritis, but it has not been our good fortune to observe them although we have had several cases under observation. In gonorrheal epididymitis, the results have been quite satisfactory and the following case in which the infection had existed for some time will illustrate its use in such cases.

Case 11.—Gonorrheal epididymitis; the infection had existed for some time, no attention being paid to it; attack had been brought on by an unusual amount of exercise. The usual medicinal treatment was followed, supplemented by the injection of 50,000,000 Neiser bacterins, which was followed by a mild negative phase;

four days afterward, 100,000,000 Neiser bacterins were injected, followed the next day by great improvement. There was an increase in discharge with a marked diminution of swelling and reduction of pain. The symptoms cleared up promptly in the course of a few days.

In chronic gonorrhœa, the infection is nearly always a mixed one and we believe that, in such cases, the autogenous vaccine is absolutely indicated. These cases should always receive local treatment also, because drainage is an important factor in the cure. The cases reported here are of long duration and have been subjected to treatment at the hands of various physicians without results.

Case 12.—Prostatitis; chronic gonorrhœa of twelve years standing. Examination showed an enlarged, tender prostate and examination of the pus showed a mixed infection. The treatment was as follows: Massage of the prostate; deep instillations of silver nitrate solution at intervals; hand injection of zinc sulphate once daily; an autogenous vaccine was made which was injected every fourth or fifth day. Very little improvement was noticed for the first three weeks, then a steady improvement began; prostate diminished in size; the fluid obtained on massage became clearer and much less in amount and the patient stated that he began to feel better. The duration of this treatment was about two months and at the present time we are unable to demonstrate the gonococcus.

Case 13.—Prostatitis; chronic gonorrhœa; patient has had gonorrhœa for seven or eight years and has had all kinds of treatment, such as massage of the prostate, dilatation, deep instillations of silver and stock vaccines. An autogenous vaccine was made, the injection of which was made every fifth day, supplemented by massage and deep instillations of silver nitrate solution at intervals; there was a marked negative phase following the first injection and the patient thought he had la grippe, as the symptoms were nearly identical. The injections were continued at regular intervals with the reaction, or negative phase, becoming less marked with each succeeding injection. The discharge has ceased, the prostate has returned to its normal size; no gonococci are present in the fluid obtained on massage. Duration of treatment, two months.

The differential diagnosis of a simple arthritis from a specific arthritis can be made by the injection of gonococcus vaccine. If the case is one of specific arthritis, there will be a marked increase of swelling and pain in the joint, while, if it is a simple arthritis, there will be no change in the condition.

Bacillus Coli Communis Infection.—The vaccine method of treatment has been most successful in cases of chronic cystitis when due to the bacillus coli communis, although it has been used with varying results in appendiceal abscesses, cholecystitis, and various local infections produced by this organism. The following case, an infection following an operation for an inguinal hernia in which the principal cause was thought to be the bacillus coli communis, yielded nicely to treatment with an autogenous vaccine.

Case 14.—Operation wound infected with colon bacillus. Examination of the pus from the wound showed the above infection. An autogenous vaccine was made, the first injection of which was followed by a slight negative phase; the pus became thinner in character and the swelling of the edges of the wound decreased rapidly. After the second and third injections there were no negative phases and the infection seemed to be limited to the skin and the superficial fascia. After the sixth injection, the case made a complete recovery.

Typhoid Fever.—Prophylactic inoculations against typhoid fever have been used quite extensively in the German and English armies and comparatively recently in the United States Army. Statistics are meager as to the results but Wright says that the incidence of typhoid fever was diminished one-half and the mortality from the disease reduced two-thirds. English statics show that, under similar conditions of exposure, for every case of typhoid fever among the inoculated, there were ten cases among the uninoculated.

The vaccine which has been used in the United States Army has been prepared from a single strain of the bacilli which has been under cultivation for a number of years. This strain has practically lost its virulence for animals.

A fresh vaccine, not over three months old, is generally used, although older vaccines have been used with good results. It is a disputed question as to how long a vaccine will retain its properties, but we believe that, if kept under favorable conditions of light and temperature, they may be kept for a long period of time, especially where a preservative has been added. Experimental work is now being done in the army to determine the keeping qualities of the various vaccines.

In prophylatic inoculations, the initial dose should be 500,000,000 injected into the subcutaneous tissue at the insertion of the deltoid muscle. The usual antiseptic precautions should be observed, one of the most efficient antiseptics being tincture

of iodine. The second should be 1,000,000,000 ten days after the giving of the first dose, and should be followed in another ten days by the same dose. Three doses are sufficient to produce immunity.

Major F. F. Russel, Medical Corps, U. S. A., recommends that the injections be given about four o'clock p. m., for the reason that, should there be a severe reaction, it will come on during the night and be practically over by morning. It is also recommended that the individual refrain from alcohol for some hours before and after the inoculation, as it seems to increase the severity of the reaction.

Something should be said here regarding the severity of the reaction and we cannot do better than give the classification as applied to the army. They class as severe, all reactions with a temperature over 103; as moderate, those between 100 and 103; all temperatures below 100 and above normal are classed as mild; when no temperature is present, the reaction is considered absent unless the patient complanis of headache or malaise.

The following table, taken from Major Russel's report, will show the resulting reactions following the inoculations of typhoid vaccine in nearly 1,500 cases:

	First Dose.	Second Dose.	Third Dose.
	1,887 men.	1,769 men.	1,450 men.
Absent	59%	69.7%	78.27%
Mild	6.15%	5.2%	.19%
Moderate	6.15%	5.2%	2.4 %
Severe	.9%	.9%	.2%

In children the reaction may be said to be absent.

The Widal reaction is positive in high dilutions, being evident sometimes, after vaccination, in those of 1 to 10,000 or even higher. It is said to reach its maximum after the third injection. The leukocyte count is temperorarily increased after each dose of vaccine, but returns to normal in about ten days. In our opinion, the prophylactic use of typhoid vaccine should be encouraged, especially among the members of a family in which there are already existing cases.

As to the use of vaccines in the treatment of typhoid, we will quote from a recent paper by Prof. J. M. Anders, who concluded regarding their values as follows:

(1) As a means of prophylaxis.

(2) In suitable cases, when continued during convalescence, to prevent relapses.

(3) To combat local infections with the typhoid bacilli,

as, for example, bone suppurations which arise in the period of convalesence.

(4) For the removal of typhoid bacilli from the urine and feces in the case of carriers.

His last conclusion seems to be the only logical way of getting ric of our typhoid carriers and the method has been attended with some flattering results.

The subject of tuberculin therapy has been so extensively discussed and written upon that it has been purposely omitted from this paper.

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COMPLETE ATRESIA OF THE VAGINA WITH REPORT OF A CASE COMPLICATED BY HEMATOTRACHELOS, RUDIMENTARY UTERUS.—OPERATION.

DR. RICHARD S. HARVEY, Newton, Kansas.

Read before the Kansas Medical Society, May 5, 1911.

History Taken 2-13-1909.

Case.—M. T., a Hopi Indian girl, sixteen years old, attending school and doing housework. Father and mother living, both well. Has three sisters and two brothers, all well. Three sisters died in infancy; cause of death unknown. Had chicken-pox in childhood. Never affected with any serious illness until present trouble began.

Patient has never menstruated. Enjoyed good health until one year ago, when present illness began with paroxysms of pain felt in pelvic and lower abdominal region, accompanied by dizziness and nervousness to the extent of muscular twitching of face and hands. These attacks occurring sometimes every four weeks and sometimes only once in two to four months, but never with the appearance of any menstrual flow. Patient constipated much of the time, subject to severe headaches and dysuria, especially during the period of paroxysms.

Condition at time of examination at Bethel Hospital, Newton, Kansas.

A well nourished, and to all appearances, a well developed girl, but nervous and timid. Pulse 92, temperature 99. Heart and lungs negative. Urinalysis and blood findings negative, abdomen slightly distended, with general tenderness, more pronounced in supra-pubic and ovarian regions. An abnormal area of dullness on percussion in flanks and supra-pubic regions. No definitely outlined mass could be palpated under anæsthesia.

It was found that there was a slight depression of the vulvar orifice, one fourth inch in diameter, and about that deep, with absence of the labia minora and clitoris; the urethral orifice situated in the upper part of this depression.

With a sound passed into the bladder, a rectal examination was made and a large soft globular and movable mass felt through the anterior rectal wall. At the normal site for the vagina a distinct fibrous cord could be felt.

Diagnosis.—Congenital complete vaginal atresia and probable hematometra. Operation, April 29, 1909.

An attempt to gain access to the mass through the perineal route by dissecting between the bladder and rectum was abandoned for the following reasons:

1. The space between bladder and rectum was practically nil.

2. It was impossible to determine, upon examination, with any degree of certainty, the absence of a hematosalpinx.

3. Having seen two unsuccessful operations for artificial vagina in similar cases performed by recognized gynecologists.

4. Believing strongly in the possibility of a rudimentary uterus on account of other genital defects, I proceeded to do a laparotomy. The usual median incision was made. The globular mass felt through the rectum was the hematotrachelos, and when filled with fluid, was six times the ordinary size, and continuous with the body of the uterus, spreading out quite symmetrically, was the large thick walled cyst filling the lower part of the abdomen and pelvis. One thousand c. c. of dark thick blood was removed from the cyst. This was separated from the post bladder wall and from the rectum after tedious dissection on account of the firm adhesions at these sites. The body of the uterus with cyst was removed. The abdomen was closed and the patient made an uneventful recovery except for slight breaking down and suppuration of the abdominal wall at the lower angle of the wound. A recent report states that the patient has gone back to camp-life and is enjoying good health. On account of the presence of defects in other genitals, and the absence of any etilogical factor, this in all probability is a case of congenital atresia of the vagina.

The comparative scarcity of these cases amply justifies the report of all individual cases. The difference of opinion in regard to its etiology calls for a careful record of the findings in each case.

Nagel, Veit and Meyer take the view that all simple atresias, i. e., when there is no co-existent defect in other genital organs,

are acquired, and most authorities at the present time concur in this opinion. Such a view as to the etiology would be strengthened in all cases where there is a history of small pox, diphtheria, measles, scarlet fever, etc., as the mode of origin.

Kustner holds that such atresias, when present at birth, are the result of inflammation of traumatism inflicted during intrauterine life. Another writer, Fromme, advances the theory that anomalies of the uterus and tubes may occur in the fetus as the result of vaginal defect. There seems to be no good evidence to deny the fact that a defect may occur primarily in some one part of the Mullerian ducts as well as in their entire length.

Smith and Waterman have collected records of thirty-seven cases whose reports were sufficiently detailed to warrant analysis in this regard, and from the history all of these cases were congenital. In seventeen of these thirty-seven cases, there was complete or almost complete atresia. (Almost complete in that there was a slight depression at the vulvar orifice of the vagina,) of which eight had normal uteri, and nine defective uteri, twenty cases showed partial atresia in the form of complete occlusion of the above or below a certain level, or of an occluding transverse septum of varying thickness, situated at any level of the canal from cervix to the vulvar outlet. In seven of these cases the obstruction was in the lower part of the tract and in six cases in the upper, and in seven the atresia was called hymeneal, but in four of these latter cases the record of the findings was too indefinite to warrant acceptance of the term. In the atresias, higher in the canal there was a defective uterus in five cases and normal in one, in the atresias lower in the tract the uterus was defective in one case and normal in six; and in the hymeneal forms, defective in three and normal in four; thus altogether in nine cases the uterus was defective and in twenty, normal. In the complete atresias the uterus was absent in five cases, rudimentary in two, and bi-horned in two; in the partial atresias of the upper part of the tract, the uterus was absent in three cases, rudimentary in one, one-horned in one; in lower atresias uterus absent in one case and normal in all the others, and in atresias recorded as hymeneal it was bihorned in two and infantile in one case. Absence of both uterus and tubes occurred in five times, being found in three cases of complete atresia and in each of the upper and lower types. In four cases the uterus, tubes and ovaries on both sides were absent, three of these cases presenting complete atresia and one other lower form, while ovary and tube were missing on one side in a case of complete atresia.

Ovarian defect involves developmental disturbances of a separate embryological structure—the Wolffian body, and hence is an infrequent co-incidence; co-existent anomally in other organs developing from this body is still more infrequent. In one case the kidneys were abnormal, being joined into one body, somewhat in the horse-shoe manner, and in one other case, reported by Dr. Will Mayo, the ovary on one side was lacking, while there was no kidney or ureter on the other side.

Bearing in mind, that we are discussing atresias probably present at birth and certainly not acquired after development of the menstrual function, and using the cases of the present series as the basis of argument, we might draw the following conclusions: Uterine defects occur a little less than one-half of all cases; there is approximately an even chance of the co-existence of uterine defect with any given form of atresia; there seems, therefore, to be no ground for asserting that a certain vaginal malformation is acquired, when it exists alone unassociated with other genital defects, when it would be regarded as primary, if other genital defects were present.

This aspect of the question does not effect the surgeon in any degree, all atresias of early origin, whatever their cause, presenting practically the same problems. Practical conclusions can, however, be drawn from our data. It is seen that the more extreme defects of the upper genital tract occur in the more extensive atresias, of the upper genital tract, that the per cent of grave uterine defect is almost as great in the partial atresias occupying the upper part of the vagina; that in this latter form the per cent of occurrence of uterine defects in general is much greater; and that in atresias of the lower vagina, while serious defects may be found in the other organs, yet their per cent of occurrence is very small, the more common defects being slight in degree.

Other considerations affecting the choice of operative methods are found in the nature of the hematoma arising from obstruction to complete discharge of menstrual fluid. Out of forty-one cases described in detail a hematoma was present in twenty-seven. Hematocolpus was found in fourteen cases, or fifty-two per cent, existing alone in three cases and associated with hematometra in six, and with hematosalpinx in five cases. In nineteen of these forty-one cases, there was, however, no vaginal canal from cervix downward, and in six other cases there was no canal at the upper end of the vagina, thus leaving only sixteen cases in which hematocolpus could possibly develop.

Hematometra occurred in twenty-three of the cases, existing

alone in seven cases, with hematocolpus in ten, and with hematosalpinx in nine cases. The uterus was the seat of hematoma in all but five of the cases in which its structure was normal. In these five cases the atresia was of the hymeneal type so that a large hematocolpus formed, and in one of these cases there was a large hematotrachelos.

Hematosalpinx was found in eleven cases, twenty-seven per cent, being bilateral in six cases and unilateral in five. Hematometra occurs oftener than hematocolpus, and hematosalpinx least often.

In 1895 Neugebaner collected one thousand cases, a surprisingly large number, almost one half of which were definitely acquired, while in three hundred other cases there was an evident history of inflammation or traumatism as etiological factor.

From a large number of the reported cases it is difficult to draw satisfactory conclusions because the details given are very meagre.

The formation of an artificial vagina in cases of vaginal atresia and rudimentary uterus has in rare instances been followed by development of the uterus and normal menstruation, and may therefore possibly result in maternity. The probability of such a result, however, is so slight as to discourage the operation.

In the vaginal operation it is often difficult to find the site of the cervix and external os for the purpose of entering the hematometra by the perineal route. However, it has been recommended to enter the uterine blood-sac at its most prominent point and to make permanent connection between the vaginal canal and the uterine cavity at that point, but this procedure gives rather poor permanent results. This difficulty is obviated by immediate laparotomy, as suggested by Pfanneustiel, Werthheim and others.

CONCLUSIONS.

1 Get a clear conception of the condition of the genital organs by means of a laparotomy incision.

2. Preserve as much as possible the normal functions of the ovaries, tubes, uterus and vagina.

3. In some cases the blood sac can only be drained through the perineum by making the dissection from above, downward.

4. The permanent results of operations for artificial vagina are discouraging in many cases.

5. In cases where an artificial vagina is desirable, the untoward symptoms should be relieved by an initial drainage of the blood-sac and the operation for permanent results of an artificial vagina instituted later.

6. In complete atresia of the vagina with a rudimentary uterus, removal of the uterus without the production of an artificial vagina will give best results.

REFERENCES.

1. Martin, Pathology and Therapy, Diseases of Women.
2. Emmett, Principles and Practice of Gynecology, 1884.
3. "Dofferlein and Kronig," Operative Gynecology.
4. Veit, Berliner Klin. Woch. No. 16, 1896.
5. Dudley, Gynecology.
6. Webster, American Journal Obstetrics, Volume 32.
7. Neugebaner Monograph, Berlin, 1895.
8. Nagel, Veits Handbooks of Gynecology, 1897.
9. Winters, Gynecological Diagnosis.
10. Veit, Berliner Klin. Woch. 1896.
11. Pfannenstiel Beitrage Gebuztsh, Gynecology.

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A REPORT OF 135 CASES OF OBSTETRICS IN COUNTRY PRACTICE.

FRANK A. CARMICHAEL, M. D., Goodland, Kansas.

Obstetrical statistics are lacking in the uniformity exhibited in other branches of medicine because of the different sources and localities from which they are drawn. The social and physical status of the class from which clinical material is obtained materially influencing statistical findings.

Thus, there is found a wide variation in statistics gathered from practice among healthy rural patients and those compiled from the records of maternity hospitals in large cities. Unfortunately, the practitioner whose field of labor is among country people rarely has the time or incliniation to carefully record the result of his observations, and rarely contributes anything of a statistical nature. This fact is regretable as much valuable data is lost on this account.

The following report of 135 serial cases exhibits some striking variations from the ordinary:

Total number of cases 135, of which 70 were multipara, and 65 primipara. The preponderance of primpiporous cases was due to the fact that my practice for the first two years was almost entirely confined to new families; those who had resided here for a period of time and had been confined by other physicians rarely showed a disposition to change.

There were 20 cases of dystocia, 12 in multipara and 8 in primipara. In the multiparous cases dystocia was due to uterine inertia, 2 cases; multiple birth with malpresentation, 3 cases; extension of head interfering with proper rotation, 2 cases; occipito posterior presentation, 1 case; transverse position of child requiring version, 2 cases; flat pelvis, 2 cases.

The 8 cases of dystocia among primiparas were due to parietal bone presentation, 1 case; small mother with large child, 2 cases; rigid perineum, 1 case; inefficient expulsive pains with exhaustion of the mother, 3 cases; uræmic convulsions, 1 case. There were two cases of high forceps in multipara, and two in primipara. The number of male births among the 70 multipara were 35 and among the 65 primipara, 40.

There was one case of mild anti-partum hemorrhage in a multipara. There were two cases of mild and one severe post-partum hemorrhage in multipara. There was one case of puerperal infection derived from a suppurating ear.

Placenta previa was not encountered though suspected in the case of anti-partum hemorrhage. In case 18, there was apparently complete premature separation of the placenta which had dropped down over the internal os. The woman was almost completely exsanguinated on my arrival, although there was no external bleeding. The uterus was enormously distended; the os permitting the introduction of one finger. In exploring the cervix, the placenta was displaced and a terrific discharge of fluid and clotted blood occurred. Efforts at rapid manual dilitation and an attempt at version were fruitless, the hemorrhage proving lethal in 20 minutes.

Case 26 had an adherent placenta requiring manual delivery.

There were two cases of mastitis among the multipara which yielded to compression and the ice-bag, and three in primipara, two of which required incision and drainage.

There was one case of puerperal convulsions in a primipara, mother and child both survived.

The youngest multipara was 19, and the oldest 43.

The youngest primipara was 15 and the oldest 40.

The average age of multipara was 26.1 and of primipara 23.2.

The longest labor in multipara was 21 hours and shortest 3 hours.

In primipara the longest labor was 40 hours and the shortest 2½ hours.

The average length of labor in multipara was 8 hours and in primipara, 14.3 hours from the beginning of pains.

Perineal laceration not involving the sphincter but requiring suture occurred in 7 multipara and in 14 primipara, all were immediately repaired with good results.

Flat pelvis occurred in two cases, both middle aged multipara of foreign birth. Both had premature rupture of the membrane with relapse of the cord. Baxton Hicks version was done in one,

while in the other reposition of the cord and delivery by high forceps was accomplished. Both children survived. In only two cases were anomalous conditions of placenta noted, both in multipara, one calcareous and one fibrotic, apparently due to interference with the blood supply of a small area. There was an anomalous condition of the cord in two cases. In one the cord was unusually thick and only 12 inches in length; in another, some peculiar knots, one of which is exhibited, were present.

There was one case of pely hydramnion in a multipara, in which distention, pain and dyspnœa were present during the last two months of pregnancy. Labor occurred about two weeks before term. As near as could be measured about 1½ gallons of fluid was discharged. In this case there was some atony of the uterus after delivery, due, perhaps to the extreme distention. There was no active post partum hemorrhage, though oozing was profuse for two days.

There was one case in which there was a periodic discharge of amniotic fluid for four months before her confinement.

Two cases exhibited a condition of post puerperal tachycardia, a phenomena, I have been unable to find mentioned in the literature at my command. In both cases rapidity of the heart was noted during second stage of labor, and continued for five days in one case, and for nine in the other. There was no rise of temperature or evidence of infection, and the discharge of blood was no more than usual. The pulse ranged from 120 to 130 and there were no subjective symptoms of discomfort. The disturbance subsided suddenly in each case.

The maternal mortality was one, from hemorrhage following a detached placenta. The fœtal mortality in which delivery was the cause was 3, one from traumatism by forceps, one died in convulsions 15 hours after delivery. This was a parietal bone presentation with strong pains and a 20 hour labor, probably from cerebral hemorrhage. One baby, a large healthy male, died three hours after birth. The labor was short, easy and apparently normal. There were no convulsions or cyanosis. The mothers' health prior to labor had been good. I have never to been able account for this death.

The time that patients were confined to bed after labor has varied from four to ten days.

In the past year, in the face of a most strenuous prejudice I have shortened the bed period of robust, healthy mothers to four and five days in conformity with the now current practice in German and Austrian clinics, and I must say I am distinctly pleased

with the results. This change is of course, considered something of an innovation, and in the presence of present popular prejudice requires some moral courage to enforce, as any accident or illness occurring at any time after the puerperium is concluded, is apt to be attributed to "getting up too soon"' I am firmly convinced however, that the present custom of keeping the puerperal woman in bed for 9 or 12 or 14 days is based neither on rational grounds of therapy or natural laws, but is purely empiric and the gradual evolution of a custom that would have been dissipated years ago, were it not that the profession fear to face the prejudice of the laity in this respect.

I do not wish to be construed as advocating that every puerperal woman should be permitted to sit up on the fourth or fifth day although this would be just as rational as keeping a robust mother who has experienced a normal labor in bed two weeks in order to impress her that she is receiving skilled care.

Undoubtedly the obstetrical art has degenerated until today it may be said that in most localities it is the least satisfactory and poorest paid branch of our work. Unlicensed mid-wifery, an overcrowded profession, medical commercialism, and human cupidity are the main factors concerned in the degenerative process, supplemented by inadequate training, carelessness, haste and lack of proper care during the puerperium. To take up and thoroughly discuss each of these factors separately would occupy too much time and space, and would be superfluous as well, as every practitioner can readily see where a combination of some of these factors has been responsible for existing conditions in his own community. It is absolutely necessary for the general practitioner to practice obstetrics in order to retain the practice of the family. This necessity has forced many men into the obstetrical field who have neither the predilection, training or judgment necessary for this branch of work, as is evidenced by the records of the gynecologist who is called upon yearly to restore by operation the health of an army of "obstetrical invalids", and perhaps too frankly acknowledges that he lives off the mistakes of the obstetrician.

Obviously the restoration of obstetrics to its proper place of dignity and importance in the profession must be a correction or elimination of the causes provocative of its degradation, and lies within the power of the profession itself.

Midwifery, licensed or unlicensed, is something which we in this particular district are fortunately exempt from but I am told that its practice seriously interferes with obstetrical progress in

other localities, and a great preponderance of puerperal sepsis is due to the unclean and unskilled methods of the midwife. A most rigid examination and license measure should govern their practice in all communities.

The growing tendency toward commercializing the medical profession and to bid and underbid for these cases has done more to cheapen obstetrical practice among the laity than any other factor, and the game of "Follow the leader", (in low prices) has been going on so long that the time is already here when a radical re-adjustment of obstetrical fees is demanded.

It is necessary to give your obstetrical patient a service in skill care and judgment commensurate with the fee you ask and in most cases this fee will be cheerfully paid. Be thoroughly grounded in the physiology of normal labor, then pathological conditions are readily recognized. Let judgment and a knowledge of the indications and contra-indications for interference govern your proceedure regardless of the importunities of the patient or her relatives. Asepsis, judgment, patience and courage are ever needful requisites. The man who spends 10 or 15 minutes with brush, soap and antiseptics to prepare his hands, then puts on a gown and pair of rubber gloves and makes his examination beneath soiled bed cloths and over a perineum and vulva that have not been prepared is not advancing the art of obstetrics and will encounter cases of infection for which he is unable to account.

The doctor who believes that might and only "might is right" is a very dangerous man to attach to the handles of a pair of forceps, if he has the strength to back up his convictions and he will leave a trail of suffering and invalided mothers in his wake, besides contributing materially to the records of infant mortality.

The doctor who applies forceps when the indication is not present because he has other important engagements or because of importunities of the patient or her friends, is subjecting both mother and child to unwarrantable risks. This is equally true of the doctor who fails to recognize or to promptly act upon the indications for interference. The man whose sympathy, lack of courage or confidence in himself will permit him to temporize with a condition that requires immediate attention, will never be a factor in the elevation of obstetrical standards, and will be frequently cheek by jowl with an uneasy conscience, while his antithesis, who is given to obstetrical innovations and rash experiments will assuredly come to grief.

The doctor who conceives that his responsibility begins with the commencement of labor and ends with its termination and the

dressing of the umbilical cord, is scarcely on a scientific par with the licensed midwife. The people are not to be blamed for refusing to pay the doctor a fee for a service that a midwife would render for half the money, Here is where the art of obstetrics is elevated to a plane above midwifery, a term that is obnoxious to most physicians.

The obstetricians duty is to safeguard the health of his patient from the time that he is notified that his services will be required until the termination of the puerperal period. To look after her mental and physical welfare, to point out a rational regime to assist her through the ordeal of labor with judgment, skill and safety, to protect her from her own indiscretions throughout her puerperium, and to see that the infant is permitted, so near as may be, to begin life's battle without a handicap. These are the elements that constitute the art of obstetrics. We all practice the art in theory, but how many of us are lacking in its practical application. These are reiterated truths that are new to none of us. They are, we may see, the fundamental principles upon which the practice of obstetrics is based, but little by little, and one by one, we are prone to omit little details, from lack of time, lack of proper equipment, or more commonly from sheer carelessness until only those rudimentary principles that experience has taught us we dare not ignore are observed. These are not your faults nor my faults especially, but the faults of the profession as a whole. We all have, and still do omit the application of many little details that tend to further safeguard the welfare of both mother and child. Show me the general practitioner who can say that he always observes every detail of surgical asepsis in conducting his accouchments, and I will show you a man who either does not comprehend the meaning of the term, or who is a relative of Annanias with strong ativistic tendencies.

Again a series of cases in which many of the safeguards have not been observed and in which no serious consequences have resulted may foster a belief that they are unnecessary. I recall a case under extremely unfavorable surroundings where before my arrival the woman had been repeatedly examined by her mother and a neighbor woman, where an attempt to perform version failed and labor was terminated by a difficult high forceps, yet contrary to my conviction that severe infection was inevitable, the puerperium was absolutely normal.

Indeed we so frequently encounter cases where the personal hygiene and surroundings of the patient are so filthy that infection seems unavoidable, that it a source of constant wonder to us

that more are not infected. However, frequently these cases escape infection, they do not justify us in omitting any precaution that may be undertaken to lessen the chance of their occurrence.

Again, infection is likely to occur when least expected, and from sources remote from the genitals. The only case of septic infection I have ever encountered in my private practice was transferred from a suppurative otitis media, probably by the patient changing her own pads without cleansing her hands.

In concluding this paper, let me say that I am not laboring under the delusion that I am presenting any thing new in the way of obstetrical proceedure, but rather emphasizing facts that are so familiar as to be often treated with contempt.

It is not what we know about obstetrics, but the manner and thoroughness with which our knowledge is applied that really counts. If we are to practice obstetrics as an art that will be accepted for its true value by the laity and command suitable remuneration for our services, let us be more painstaking and thorough in observing its details.

Just so long as we commercialize the profession, and put up cheap obstetrical rates as a leader to catch the public will the present low standards exist. Whenever we as a body say to the laity, "We are going to give you a better, a safer and a more skilled service at a slight advance over present rates." and we make our promise good, the public will pay the man that renders them the most efficient service even though this fees be twice that of his competitor.

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REPORT OF A CASE OF THE AUTOMATIC SHEDDING OF THE GALL BLADDER.

H. G. WELSH, M. D., Hutchison, Kansas.

Read before the Kansas Medical Society, May 5, 1911.

M. E., male, age 24, a farmer by occupation was admitted to the Welsh Hospital October 14, 1910. He had been very ill for three weeks and his physician had sent him to the hospital with a diagnosis of appendicitis. A blood count showed a high leukocytosis. He was extremely weak, a very sick man. The recti muscles were tense. There was great tenderness on the right side at and above the McBurney point. The diagnosis not being exactly clear, we decided to open the abdomen in the region of the appendix. On October 15, 1910, we made an opening in that region and found a good sized abscess well walled off. The pa-

tient was in such an extreme condition that I decided not to remove the appendix as it appeared to be well covered up with adhesions, so I packed the abscess cavity with gauze and hurried the patient to bed, and ordered normal salt solution per rectum.

The patient had only a slight rise in temperature at the time he entered the hospital and this did not change much for several days, running from ½ to 1½ degrees above normal.

The patient began to improve, however, the gauze drain being removed on the 4th day, and replaced with smaller gauze packing each day thereafter. On the fifth or sixth day a fecal fistula developed and bowel contents discharged freely for a few days and then healed.

About the fourteenth day after operation, a black object appeared in the wound at the morning dressing and looked very much as though it was a portion of gangrenous gut.

My assistant, Dr. M. C. Roberts, called me to see the case and I told him to repack the wound with gauze and dress it again that night while we awaited developments.

The patient was improving daily, was much stronger and I could hardly think the substance was bowel, although it looked and felt like it. In the evening I went with the Doctor to dress the case and when the gauze was pulled out of the wound the mass came out with it, and at first sight it looked like a piece of gangrenous gut about five inches long.

We took the mass to the laboratory and found it to be about five inches long by two inches in diameter, with an opening at the smaller end, and about half full of a semi-solid or mushy contents.

We decided it to be the gall bladder and sent it at once to Dr. A. E. Hertzler of Kansas City, Mo., for his opinion. In a few days I received a letter from him stating that it was the whole gall bladder.

Two or three days after the shedding of the gall bladder bile began to discharge freely through the wound and did so for several days, and then ceased and the wound gradually healed.

The patient fully recovered and left the hospital December 1, 1910. We found no gall stones at the operation, and none passed through the wound afterwards. Dr. Hertzler kindly preserved the specimen, which I am able to show you today.

I have been unable to find any similar case in the literature at my disposal, and I would be glad to hear if any one else had a case like unto this.

DISCUSSION.

Dr. Axtell, (Topeka): Mr. President ,I dont think it would be very

much use for me to try to discuss anything like this, because I have never seen anything like it. We know that Nature obliterates the gall bladder, we have all probably seen that. We have seen the gall bladder gradually dwindle up and dry up until it has become almost nothing, but to see one amputated entirely, I have never seen, and I will let some older men discuss it.

Dr. Munn, (Topeka): I was sitting pretty well back, and did not get the full benefit of the paper. Was it a case of some trouble in the abdomen which resulted in the formation of pus, which the Doctor drained, late in the course of the case something appeared and came out of the wound? That something, upon investigation proved to be the gall-bladder. Is that the story?

Dr. Welch, (Hutchison, Kansas,): That is the story.

Dr. Munn. It reminds me of a case I had some two years ago. A German speaking broken English walked into Stormont Hospital one morning, saying that he had been having considerable pain in his abdomen. We held a consultation over the case, and decided that something was wrong in his belly, though it was grave enough to demand an abdominal section. Possibly not absolutely necessary, but his best interests made it advisable to do so at once, that the matter of safety he presenting some evidence of sepsis. After some hesitation, he consented. We made the incision high, as the mass was slightly to the right, and above the usual location of appendix abcesses. We could not find the gall-bladder. The appendix was normal, but we did find a mass of stuff that was covered and surrounded by the omentum together with some free pus. We thought the mass was inflammatory, looked like plastic matter. We scratched our heads, and finally decided that the best thing we could do was to close the incision and leave free drainage. After he was taken from the operative room we made an examination of the "plastic material." It was gangrenous, and spreading it apart and looking through it we found some gall stones. Examing further, found it to be a completely amputated gall bladder. We decided that he would die with peritonitis, but he got well.

In looking up the authorities later I found it was a very rare condition. It did occasionally happen and was usually discovered after death, but it was rarely found in patients before death. It had happened perhaps once or twice in the experience of men who did a great many abdominal sections.

Dr. Welch, (Closing the discussion) Mr. President, I am glad to hear that some one found something similar. Dr. Munn's case must have been similar to a certain extent, at least; and I presume there have been other cases similar to this one. We seldom find anything new; but I have not been able to find anything in print on the subject, and perhaps later on I will find something.

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Do not refract a patient for glasses without first making a thorough ophthalmoscopical examination.

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The old treatment of fracture of the neck of the femur by Buck's extension is as bad as it is archiac. In all but very old and very feeble subjects reduction and fixation in plaster by Whitman's method is the treatment of choice.—American Journal Surgery.

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The history of typhoid several years previously will explain many cases of otherwise obscure localized bone abscess. The perforating cortical ("shirt-stud") abscess is characteristic of typhoid infection.—American Journal Surgery.

THE JOURNAL
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EDITORIAL

To succeed financially, a knowledge of how to spend money is quite as essential as how to earn it.

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When you receive a copy of your discussion of papers read at the last meeting for correction, please return them without delay to the editor. Copies of discussions have been sent out which have been delayed until too late to publish and some of have not been returned at all.

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What A Medical Society Means to A Physician.—It means first, a constant post-graduate course of study. Where physicians both old and young meet on an equality, discuss cases from every angle, advance new ideas and review the older ones. Where theory and practice are put to the test and worked out to successful conclusions. Where cases of doubtful diagnosis can be discussed and experiences related along lines of mutuality. Where almost forgotten teachings are brought to mind, and their importance realized. Where a flagging ambition is stimulated and new courage instilled. Where friends and goodfellowship are renewed and relaxation enjoyed. Withal it means keeping abreast of the profession and not in the rear rank. Can you afford to do without it?

The advertising in the Journal helps in a material way to pay the expenses of its publication. Advertisers of course will not advertise unless they see sufficient returns to justify them. Now it behooves us to support in every way possible the firms who have faith in our Journal. For instance if there are two or three surgical or medical firms handling the same products and one of them advertises with us, please send your business to the one who does and thereby prove that his judgment is good, and his results better.

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In last months issue of the Journal was published a set of resolutions adopted by the Golden Belt Medical Society, in reference to the candidacy of Mr. Arthur Capper for Governor. Mr. Capper is editor of the Topeka Daily Capitol and in such capacity has and does publish the advertisements of "Dr". Carson and his "Temple" of Health. When he was interviewed upon the subject by a committee from the state society who requested him to remove the objectionable advertising he gave them scant courtesy and refused to do so. Now under the circumstances, we as members of the state society, should use our best endeavors to keep out of office a man whose methods are so at variance with our ideals, and when the time presents itself work most industriously to prevent him from holding a public office.

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At the present writing it looks as though the charges preferred against Dr. H. W. Wiley by his accusers who seem to be backed up by the *interests* will likely act as a boomerang. The investigation being conducted by a Committee of Congressmen has brought out testimony which has proven beyond a doubt that Dr. Wiley has used his best efforts to enforce the Pure Food and Drug Laws, and that other members of his department have tried in various ways to annul the good work the Doctor has done. We have yet to see why Attorney-General Wickersham should "permit" Dr. Wiley to resign, but on the contrary we think some of the other members of the board should be "allowed" to do so. The evidence so far submitted shows that Dr. Wiley is not even guilty of a techincal violation of the law in paying Dr. Rusby to assist him in enforcing the law.—Certainly the payment of $20 per day for reliable expert work such as Dr. Rusby has done cannot be an offense, since sums many times that size have been paid out of the contingent fund where the results attained were in no wise comparable. It looks like the same old fight of the fruit and vegatable packers, who want to use benzoate of soda,

which will enable them to use inferior material in a marketable way. Granting that the use of benzoate of soda when taken in small quantities does no physical harm, the fact remains that it permits the manufacturers to use inferior goods, which does the actual damage. In the New Jersey State Medical Journal for August are published the statements of two manufacturers which speak for themselves:

"Dr. Wiley's condemnation of benzoate of soda and artificial colors in food products is supported by our own evidence that their use is not necessary when clean, wholesome, sound materials are employed. We learned long ago in our Premier kitchens that it was not necessary to use a chemical in order to prevent fermentation or a coal-tar dye in order to make our products attractive. Such aids are only required where unscientific cooking prevails. Benzoate of soda, benzoic acid and all other preservatives and artificial colors are unnecessary. They are absolutely excluded from our kitchens."—F. H. Leggett Co.

"We have no quarrel with the Pure Food Laws of the country or with any officer charged with their enforcement. We use only fresh, sound fruits and vegetables. These are prepared by neat, uniformed work people, in clean kitchens, without the use or need of benzoate of soda or other artificial preservatives. We welcome now, as we always have, the strictest enforcement of all pure food laws."—H. J. Heinz Company.

After perusing these statements by far the wisest plan in buying canned goods would be to carefully examine the label and see that benzoate of soda was not used as a preservative.

In conclusion, would it not be well to singly and collectively give our endorsement of Dr. Wiley and his methods, to President Taft.

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Our Society.—How to Improve It.—Since it will be sometime before the next annual meeting of the State Society we might indulge in a few thoughts upon the ways and means for bettering the Society. In the first place should we not have more members? There are according to the last A. M. A., directory, 2650 practicing physicians in the State of Kansas. Supposing 400 are irregular or ineligibles, we then have a balance to draw upon of 2250. Our membership for the past three years has been between one thousand and eleven hundred which would leave a balance of "outsiders" more than totaling the number of members. We ought to have a large part of them in the society, and it will take individual and collective effort to bring this about. Our state

secretary cannot be expected to tour the state in quest of members but each county society should have a committee on membership whose duty would be to actively canvass their respective counties and increase their membership to include every available physician. Many doctors have not even been asked to join the County Society, much less to be shown the advantages accruing by becoming a member. So lets wake up and bring up the membership to a total where it rightfully belongs.

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The attendance at the annual meeting should receive more consideration. It must be advertised and encouraged to a greater extent. We ought to have double the attendance at the meetings than we have had in the past. Certainly no one wants to prepare an exhaustive paper which requires a great deal of time and effort only to read it before a mere handful . Consequently programs will get more difficult to fill as time wears on, and an uninteresting program will further decrease the attendance. These two work hand in hand. We must, if possible, get out the programs earlier and try whenever possible to get the newer topics or the ones that command the more general interest. We then should see that each member has his program thirty days before the meeting, giving him a chance to get up sufficient interest to attend. Announcement of the State meeting and a reading of the program should be made at every county society meeting in the state at least two weeks before the annual meeting.

When we have engendered more interest in the annual meeting then we can expect to have a larger attendance.

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From A Country Doctor.—The *study* of medicine requires health, wealth, industry, intelligence and a spirit of "go-aheadness". The *practice* of *medicine* requires more health, more wealth, more industry, more discernment, self-denial, governable disposition, and a knowledge that the least returns are made according to the efforts expended of all the professions on the face of the earth. Success in the practice of medicine comes to few who have not the means to complete the proper training and a capital to fall upon during the inactive "getting started" period. Keeping up appearances gets business more rapidly, especially at the start, than the successful treatment of cases. Health is really the first requisite for without it the machinery fails to work, no matter how much it is oiled up with wealth. The sleepless nights, the irregular meals and hours requires a constitution much above the weakly. Intelligence, industry and ambition go hand in hand all

three of which are prime factors in advancement. Self-denial which so many of us lack means the ability to take off our "Sunday Clothes" when just ready to start to the entertainment, church fair, etc., and sit up the major part of the night aiding the Stork who seems to confine his work mostly to lamp-light. Take it all in all there is, or must be a fascination that draws us to this humanitarian work, to receive no plaudits, but to work untireingly until the end, hoping for a reward not extended by human hands.

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The following letter has been sent to every county society in the state. It is to be hoped that it will bring results . We can can all do a great deal of good in ridding the state of these evil-doers. Persistent work is necessary and every hour and penny spent in helping to enforce the law will bring about a just reward Under the circumstances the county societies should take hold, and bend all efforts to a successful cleaning up in the state.

GENTLEMEN:

I wish to call your attention to a letter of Dr. H. A. Dykes, Secretary of the Board of Medical Registration and Examination, issued under date of July 5, 1911, relative to the institution of proceedings against all illegal practitioners in Kansas.

I wish to state that the Board has not sufficient funds to prosecute those cases, and hence they are unable to do the work that should be done. I wish to appeal to the officers and members of your county, to take this matter up in an official way, and furnish evidence and issue complaints to the County Attorney in every possible way in the prosecution. I feel that no county society could spend their funds in a better way than to assist in stamping out those who are violating the law, and assure you that the state society will do everything in its power, as far as the funds will permit, to assist in any prosecution that may be brought.

This was the unanimous decision of the Council, at the meeting held in Kansas City, in May.

Do not throw this letter aside, but take the matter up officially in your Society and see if you cannot obtain results.

Yours truly,

Aug. 5, 1911. CHAS. S. HUFFMAN, Secretary.

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The following letter is a copy of one sent to Govenor Stubbs by Dr. H. A. Dykes, Secretary of the State Board of Medical Examination and Registration:

Lebanon, Kan., August 4, 1911.

Gov. W. R. Stubbs, Topeka, Kansas.

DEAR GOVERNOR:—I have been instructed by the Board of Medical Registration and Examination, to explain to you the situation of "Chiropractice" in Kansas. To be honest and frank with you, it is nothing more nor less than the worst kind of quackery and deception. A chiropractic College or Infirmary, has been claimed to exist, in Coffeyville, Arkansas City, Hutchison, Wichita, Topeka, Beloit, Scott City and other places in this State, which were nothing but small rooms, two or three generally, sometimes a rug and more often none on the floor, with the parties in charge, claiming to be able to grant and sell Diplomas for $150 apiece, with three months instruction, whether the student has any or no education and in proof of this see letter attached hereto from the Coffeyville Chiropractors who were offering a Diploma and a three months course for $150 authorizing the holder thereof to kill little innocent children in Kansas. Since discovering that they were simply a fraudulent outfit and prosecutions started this same man Crabtree at Coffeyville plead for mercy over his signature under date July 1, 1911, promised to leave the State and quit violating the law and said he was going off to study Medicine and Surgery. They represent to you that they have a great number of these practitioners in Kansas, when in fact, there are only about twenty, including their wives, according to their own M. C. A. Directory, a copy of which I herewith enclose and call your attention to page 82 therein. The county attorneys in thecounties where these outlaws are located with two or three exceptions have reported that these parties, have either left the State or are being prosecuted, whose names you see on page 82. I also call your attention to pages 87, 88 and 89 where the father of Chiropractic graft, ignorance and imposition has headquarters advertised at Davenport, Iowa, fleecing his victims for $200.00 each, many of them being from Kansas, which money he obtains under fraudulent pretenses, by claiming that his Chiropractic Diplomas entitles the holder thereof to practice Medicine in Kansas, by calling such practice "Adjustments of the Spine", in order to evade the law, and the only preliminary entrance requirement to obtain his Chiropractic Diploma is $200.00. One of these Chiropractors presented himself and took the examination in June 1911, before our Board and admitted under oath that he had no preliminary education on Dr. Charles J. Simmons' branch. Physiology he made a grade of 14 and on Anatomy 16, and yet he persists in violating the law at Stafford, Kansas, while under bond to appear at the next term of the District Court and he has no more knowledge of diseases or their treatment than a horse. Chiropractics Diplomas are nothing

more legally, than fraudulent paper and have been declared by the Kansas Supreme Court and only a few days ago the by Supreme Court of the State of Missouri, as not being legal and entitles the holder thereof to nothing, from a Medical or Surgical standpoint, in either state. My Dear Governor, an attorney is located in this State, whose financial interests are paramount to the merits of "Chiropractic"" and one half of his petitioners, I imagine did not know what they were signing and I presume, the other half did not care, when they placed their names on the petition for the pardon of P. W. Johnson, a Chiropractor of Hutchinson, who was convicted in Stafford County, and who should not receive a pardon at your hands, especially at this time when these fakirs and out-laws are making such a desperate fight on the Medical Board, who are attempting to raise the Medical Standard in this State and accomplish the purpose for which you appointed them and be recognized as an efficient Board in and out of the State. I have the honor to inform your Excellency, that every member serving on the present Board has been appointed by yourself and that the Kansas Board is now recognized by thirty sister States on reciprocal registration and I beg of you to investigate these so-called "Chiropractors" and you will find them as I have, to be without any preliminary education whatever, with no knowledge of Medicine and Surgery, and worst of all, they teach the people that such diseases as consumption are not communicable from one person to another, oppose quaranteen regulations and absolutely disregard sanitary surroundings, disinfection or isolation of diseases, which facts you will discover by reading their Journal herewith enclosed. Men have been sent to the penitentiary in Chicago and elsewhere for selling fraudulent Diplomas, on a basis of these "Chiropractors" tactics at Coffeyville, Kansas, and elsewhere in the State. My Dear Governor, I have given you the facts regarding these charlatans without prejudice and every Medical man in Kansas, or elsewhere, who has investigated them will bear me out in every statement. Under the present Medical law they are simply medical outlaws.

The Board of Medical Registration and Eaxmination beg to enter their protest against the pardon of P. W. Johnson, Chiropractor, convicted in Stafford County Kansas for violation of the Medical practice act.

Yours very truly,

H. A. DYKES, M. D.

Secretary State Board Medical Registration and Examination.

The letter from the Board of Medical Registration and Ex-

amination to Governor Stubbs, published in this issue of the Journal, clearly sets forth the status of the so-called "Chiropractics" in this state.

Every physician who has at heart the welfare of the public and the honor of the State should join the Board in its protest to the Governor against the pardon of this Chiropractor who was convicted for violation of the Medical Practice Act.

Such convicts deserve no consideration whatever, for the reason that their cult was never conceived with honesty of purpose in view as shown by their practices. Their schemes have been laid to make a technical evasion of this Act and now that some of them have been caught in the meshes of the law they sought to evade, they should be made to suffer the full penalty.

The courts having decided that these fakirs can no longer practice their deception in this state it is no difficult task to imagine what they are planning to do at the next session of the legislature. Those who are familiar with conditions that prevailed at the last session are fully aware of the powerful influence exerted from this source.

If our committee on Legislation and Public Policy is expecting an easy task to accomplish what it is expected to do, it should at once organize and commence an active campaign.—J. E. S.

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SOCIETY NOTES.

The Northeast Kansas Medical Society will meet at Kansas City, October the 26th. There will be two sessions one in the afternoon at 1:30 and the other one in the evening, at 7:30. A dinner will be extended the members and guests at 6 o'clock by the Wyandotte County Medical Society. The full program will be published in the October issue.

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The annual meeting of the Medical Association of the Southwest will be held in Oklahoma City, October 10-12 1911. The physicians of Oklahoma City are making elaborate preparations to entertain the society, and the scientific program is the "best ever." An unusually large attendance is looked for. The meeting will be held under the presidency of Dr. M. L. Perry of Parsons. Kansas,

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The Labette County Medical Society held its regular meeting in Oswego July the 26th, twenty-four doctors were present, and an excellent meeting resulted.

Dr. E. E. Liggett of Oswego, demonstrated two cases of Pellagra, occurring in a mother and daughter, the child being but 5 years of age. The patients showed pronounced skin lesions, and had a history of persistent diarrhœa, with mental depression in the mother. A full discussion followed,, Dr. Crumbine of the Board of Health, who had been notified of the cases, was present and agreed with the diagnosis. It is believed that these are the first cases reported from private practice in Kansas, two cases were previously reported from the State Hospital at Parsons.

Dr. Geo. Liggett presented a boy with peculiar chest findings, probably due to tuberculosis.

Dr. Emma Hill showed a patient who had recovered from pyemia under vaccine treatment.

Dr. Geo. Liggett, R. L. Von Treba, and R. L. Bennett read papers on Infection, each discussing a different phase of the subject.

Dr. Christman read a paper on the Examination of the Blood.

Following the program the society was entertained at a banquet by the Oswego doctors.

O. S. HUBBARD, Secretary.

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NEWS NOTES

The Wyandotte County Medical Society will open the fall session October 3, 1911.

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Dr. Frederick W. Shaw sailed July 15, for Manilla, Phillipine Islands, to enter the U. S. Army Service as captain in the Medical Corps.

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The University of Kansas School of Medicine opens their thirty-second session September 13, 1911, at Lawrance, Kansas.

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Dr. S. G. Zinke has removed from Leavenworth to Kansas City, Mo., where he has accepted the chair of genito-urinary surgery in the Post-Graduate Medical College.

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The Kansas Medical College (Medical Department Washburn) of Topeka, opens their twenty-second session, September 12, 1911. The Dean is Dr. William E. McVey.

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Dr. Osler, formerly professor of medicine at Johns Hopkins University, Baltimore, and now regius professor of medicine in

Oxford University, Enlgand, has recently been made a baronet by King George, being one of the honors conferred in connection with the King's coronation.

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Our secretary, Dr. Charles S. Huffman, spent August at Fort Riley, where he had charge of the State Militia during the encampment. He carries the title of General. We are not informed as to the correct number of guns fired to salute the General, but we are fully informed as to the importance of the office.

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The hospital staffs of the two Kansas Cities are to have a Clinic week October 2-8 1911. The plans are for clinics in the mornings with medical and surgical meetings in the afternoons. Every thing is free and with the Priest of Pallas attractions for evening relaxation, a large crowd will undoubtedly turn out from the South-west. The program will appear in a later issue of the Journal.

Case Reports.

Rupture of Superior Vena Cava.—E. E. Sherrard and C. A. Smalley, Los Angeles, Cal. (Journal A. M. A., July 29), report the case of a woman, aged 53, in supposed good health and who had not had a doctor for twenty years, who was found in complete collapse which came on suddenly while preparing to go out. Her lower extremities were cold and paralyzed. She suffered from air hunger and complained of pain in the left axillary line on a level with the nipple. Temperature was 97,5. pulse 45, weak and thready. She improved slightly under treatment for a day or two but suddenly expired while being bathed. The organs were mostly normal. There was some sclerosis of the aorta and pulmonary arteries and the liver was much enlarged and, with the portal veins, much congested. The superior vena cava was ruptured within the pericardium, which was filled with blood and clots. The tricuspid valves were normal, but were incompetent from dilatation of the right auriculoventricular ring. No cause was discovered for the rupture other than the conditions mentioned, but the authors suggest as probable the following sequence of events. The lack of elasticity in the pulmonary arteries was enough to retard the blood-current through the right heart and the increased effort was enough to produce dilatation of the auriculoventricular ring, with consequent incompetency of the tricuspid valves. This permitted congestion of the liver

and portal veins and after the inferior vena cava became engorged the back pressure was too great for the superior vena cava which gave way. They think the whole process could have occupied but a short time or symptoms would have been earlier complained of and the left heart would have shown signs of hypertrophy. Perhaps the forty hours of acute illness of the patient would cover the whole. Spontaneous rupture of the superior vena cava is so rare as to be almost unique. The authors have been able to find but one reported case in their examination and no mention whatever of such a condition in the works on pathology consulted by them.

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Remarkable Ante-Mortem Rise of Temperature.—H. W. King, New Orleans, reports a case of tuberculosis meningitis in which the temperature on the fifteenth day of illness reached 105.2 degrees F., with a pulse of 110 and respiration 46. Within the next two hours there was a decline of two degrees, though the pulse rate was increased to 128 and respirations had dropped to 36. For five hours, temperature (103 degrees F.), pulse (128) and respiration (36) remained unchanged, and then within the short interval of three hours, the temperature leaped to 106.5 degrees F., and pulse 140, respiration 48. The sudden change was noted at 6 a. m., and three hours later, temperature was 107 degrees F., pulse 145, respiration 60.

From this hour, the temperature kept mounting higher. To avoid the chance of error in observation, several thermometers were used, all with the same result. At 1 p. m., the temperature was 107.8 degrees, pulse 170, respiration 76; and at 5 p. m., the temperature had reached 110.8 degrees. Forty minutes after this recordation the patient expired. A complicating terminal pneumonia hastened the end.

As a rule in tuberculous meningitis, just before dissolution, the temperature sinks to 94 or 95 degrees, though there may be a hyperpyrexia. Osler calls attention to a case of Braumler's where the temperature rose just before death to 110.7 degrees.

The diagnosis of meningitis was based on the following facts:

1. The previous personal history of poor health and enfeebled constitution.

2. The illness, influenza preceeding the general collapse which rendered the patient fertile for tubercular infection.

3. The evidence of pulmonary involvement—persistent cough, great loss of weight and other physical signs.

4. The meningeal manifestations—cervical rigidity, Kernig's sign and clinical phenomena peculiar to meningitis.

5. The cyto-diagnostic evidence as revealed by examination of the cerebrospinal fluid—the amount of fluid—the clearness of the fluid—the high pressure at which it was obtained—the delicate, though firmly coagulated fibrin clot—the marked lymphocytosis, and Noguchi's test positive.

6. The death of the patient.—Virgian Medical Semi-Monthly.

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Mercuric Chlorid Poisoning.—J. M. Mabbott, New York Journal A. M. A., August 5), reports a case of mecuric-chrloid poisoning with ptyalism, stomatitis, urinary suppression, vomiting, etc., following vaginal hemorrhage treated by tampons soaked with bichlorid solution applied to the bleeding cervical laceration some days after confinement. He also used bichlorid solution (1 to 4,000) douches, though the nurse claimed that the second of the two douches was only sterile water. The teaching of obstetrics justified his practice in this case, but it shows that a combination of conditions is possible under which poisoning may occur from a vaginal douche given a whole week after labor. The patient was recovering from the poisoning when she was taken with intercurrent bronchopneumonia and edema of the lungs, which carried her off three weeks after the poisoning and four weeks after labor.

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OBITUARY,

Dr. Edward Crawford Rankin, for many years a prominent and beloved physician at McLouth, Kansas, was born near Phillipp, W. Va., Aug. 3, 1853, of Scotch parentage. Most of his mature life was spent in Kansas. He was an alumnus of our State University, a graduate of the Kansas City Medical College, and a man widely honored in his profession. He was converted at the early age of ten, and at that time united with a Presbyterian church. In 1892 he became a Baptist and presented himself for membership with the McLouth Baptist Church. Rev. J. M. Whitehead baptized him. He was soon chosen as a deacon, and elected to other offices in the church. As the years passed by he proved his fidelity and usefulness in all these positions. A Christian physician, to whom life was sacred and the elimination of suffering a holy ministry. He was held in high esteem by citizens and friends. He was a life member of our Convention. On the first day of June, 1910, at St. Mary's Hospital, Kansas City, in an operation that was hoped to bring him help, he passed away. His family, church and community greatly miss him.

Baptist Annual.

Joseph H. Baxter, M. D., Bellevue Hospital Medical College, 1884; for forty years a practitioner of Columbus, Kan; died at his home in that city, July 14, aged 63.

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David W. Else., M, D.. Kansas City, (Mo.) Hospital Medical College, 1885; at one time coroner of Cloud County Kan; died at his home in Concordia, July 2, from heart disease, aged 70.

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Hubbard Linley, M. D., University of Nebraska, Omaha, 1893; a member of the American Medical Association; division surgeon of the Missouri Pacific Railway, with headquarters at Atchison, Kan; a member of the local board of pension examining surgeons; died suddenly in his office in Atchison, July 14, from heart diease, aged 51.

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John Jacob Wuerth, M. D., College of Physicians and Surgeons, Chicago, 1898; of Chicago, a member of the American Medical Association; died at the home of his parents in Lawrence, Kan., August 3, from an accidental overdose of strychnin, aged 43.

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CLINICAL NOTES

Mayo says that the old idea of gallstones without symptoms must now be acknowledged to be incorrect. We have become better informed by operative experience with the disease. He questions the high percentage of gallstones in the general population as estimated by some good authorities and thinks it is more probable that not over 0.5 per cent would be a fair estimate of the frequency of gallstones in individuals of all ages, although evidence at hand shows that from 5 to 8 per cent of women and from 2 to 4 per cent of men have gallstones after the age of fifty. The symptoms may not be recognized as regards their source though appreciable to the individual and to the observer. He has been impressed with this fact on finding undiagnosed gallstones in operaating on women for pelvic trouble.—Ohio State Medical Journal.

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For Sale.—Yale operating chair, in good condition, address, Dr. A. H. Connett, Great Bend, Kansas.